

THAT WHICH IS CLAIMED:

1. A method for displaying data in a selected language, comprising:
receiving a data record formatted in a language independent markup format;
retrieving a style sheet associated with the selected language;
formatting the data record based on the style sheet; and
displaying the formatted data record in the selected language.
2. The method of Claim 1 further comprising:
retrieving a second style sheet associated with a second language different
from the selected language;
formatting the data record based on the second style sheet; and
displaying the data record formatted based on the second style sheet in the
second language.
3. The method of Claim 2 wherein the data record comprises an
extensible markup language (XML) file including language independent neutral
format data values and wherein the style sheets comprise extensible stylesheet
language (XSL) files.
4. The method of Claim 3 wherein receiving the data record comprises
retrieving the data record from storage.
5. The method of Claim 1 further comprising providing a plurality of
style sheets associated with different languages and wherein the plurality of style
sheets include a locale attribute specifying an associated one of the different
languages.
6. The method of Claim 1 wherein the data record comprises data
collected at a remote location and wherein the remote location displays data using a

second language different from the selected language.

7. The method of Claim 6 wherein the style sheet contains a plurality of text records in the selected language and wherein the data record contains a plurality of data values in a language independent/neutral format and wherein formatting the data record comprises interspersing the text records with the data values based on the style sheet to provide the formatted data record.

8. The method of Claim 7 wherein interspersing the text records with the data values further comprises interspersing the text records with the data values based on tags associated with the data values in the data record.

9. The method of Claim 8 wherein the data values are selected from the group consisting of numerical values and event indicators.

10. The method of Claim 8 wherein the data record comprises an extensible markup language (XML) file and wherein the style sheet comprises an extensible stylesheet language (XSL) file.

11. The method of Claim 8 wherein the data record comprises a message type selected from a plurality of message types each having an associated style sheet and wherein retrieving a style sheet comprises retrieving a style sheet associated with the message type of the data record.

12. The method of Claim 8 wherein the data record comprises network resource utilization and/or event indicator data collected by an application manager agent at the remote location.

13. The method of Claim 12 wherein the data record comprises a

message type selected from a plurality of message types each having an associated style sheet and wherein retrieving a style sheet comprises retrieving a style sheet associated with the message type of the data record.

14. The method of Claim 13 wherein the data record includes data collected by one of a plurality of application manager agents and wherein ones of the plurality of application manager agents have associated message types.

15. The method of Claim 13 wherein the data record comprises tabular data and wherein formatting the data record comprises sorting the tabular data for display.

16. The method of Claim 6 further comprising the following carried out at the remote location:

generating data values at the remote location;

presenting the generated data values in a language independent markup format to provide the data record;

forwarding the data record from the remote location to a location using the selected language; and

wherein the steps of receiving a data record, retrieving a style sheet, formatting the data record and displaying the formatted data record are performed at the location using the selected language.

17. The method of Claim 1 wherein the steps of receiving, retrieving, formatting and displaying are performed by a first application program and wherein the method further comprises providing the formatted data record to another application program for further processing.

18. The method of Claim 17 wherein the another application program

comprises a system management program.

19. The method of Claim 1 wherein the received data record includes a schema defining data and a style sheet identifier that identifies the style sheet and wherein retrieving a style sheet comprises retrieving a style sheet based on the style sheet identifier and wherein formatting the data record comprises formatting the data record based on the style sheet and the schema.

20. The method of Claim 19 wherein the schema further includes display information in a base language and wherein retrieving a style sheet based on the style sheet identifier comprises retrieving a default style sheet configured to display data in the base language using a default format if the style sheet identifier corresponds to an invalid style sheet at a data processing system receiving the data record and wherein displaying the formatted data record comprises displaying the formatted data record in the base language and the default format.

21. The method of Claim 19 wherein the data record includes a plurality of style sheet identifiers.

22. The method of Claim 19 wherein the retrieved style sheet specifies a free format table.

23. The method of Claim 19 wherein the data record includes a date value and/or a time value in a predefined format and wherein the retrieved style sheet specifies a display format for the date value and/or time value associated with the selected language.

24. The method of Claim 1 further comprising providing a plurality of style sheets associated with different languages and wherein the plurality of style

sheets include a locale attribute specifying an associated one of the different languages and wherein the retrieved style sheet includes a plurality of data descriptions that specify descriptions for ones of the data values.

25. The method of Claim 24 wherein the retrieved style sheet includes at least one unit specification that specifies a language specific unit for at least one of the data values.

26. The method of Claim 1 wherein the data record comprises a collaborative editing document.

27. A method for providing data generated at a first data processing system that displays text in a first language to a second data processing system that displays text in a second language different from the first language, the method comprising:

generating data values at the first data processing system;

incorporating the generated data values in a language independent markup document, the language independent markup document including an identification of a style sheet that specifies how to present the data values in the second language, to provide the data record; and

forwarding the data record from the first data processing system to the second data processing system.

28. The method of Claim 27 wherein the data record comprises an extensible markup language (XML) file including language independent neutral format data values and wherein the style sheets comprise extensible stylesheet language (XSL) files.

29. The method of Claim 27 wherein the data record comprises network

resource utilization and/or event indicator data collected by an application manager agent at the first data processing system.

30. The method of Claim 27 wherein the data record comprises a message type selected from a plurality of message types each having an associated style sheet and wherein the identification of a style sheet comprises an identification of a style sheet associated with the message type of the data record.

31. The method of Claim 30 wherein the data record includes data collected by one of a plurality of application manager agents and wherein ones of the plurality of application manager agents have associated message types.

32. A system for language independent display of data comprising:
a data generation module at a first data processing system that displays text in a first language, the data generation module being configured to:

generate data values;

incorporate the generated data values in a language independent markup document including an identification of a style sheet that specifies how to display text associated with the data values in a second language different from the first language; and

forward the data record from the first data processing system to a second data processing system that displays text in the second language.

33. The system of Claim 32 wherein the data generation module comprises a language independent binary.

34. The system of Claim 32 further comprising:
a data display module configured to:

receive a data record formatted in a language independent markup

format from a data processing system that displays text in a language different from the first language;

retrieve a style sheet that specifies how to display text associated with the data values in the data record in the first language;

format the data record based on the retrieved style sheet; and

display the formatted data values in the first language; and

at least one style sheet associated with the first language.

35. The system of Claim 34 wherein at least one of the data display module and the data generation module comprises a language independent binary.

36. The system of Claim 35 further comprising at least one second style sheet associated with a language different from the first language.

37. The system of Claim 35 wherein the data record comprises a message type selected from a plurality of message types and wherein the at least one style sheet comprises a plurality of style sheets associated with ones of the plurality of message types.

38. The system of Claim 37 wherein the identification of a style sheet identifies a plurality of style sheets associated with different languages.

39. The system of Claim 35 wherein the data display module and the at least one style sheet are associated with the first data processing system, the system further comprising a second data display module associated with the second data processing system configured to display text in the second language and at least one second style sheet associated with the second language.

40. The system of Claim 35 wherein the first language comprises

English and at least one of the different languages is selected from the group consisting of German, French, Spanish, Chinese and Japanese.

41. The system of Claim 35 wherein the at least one style sheet comprises a plurality of style sheets associated with ones of a plurality of different message types and wherein the data generation module is configured to incorporate generated data values associated with a selected one of the message types in a language independent markup document including an identification of a style sheet associated with the selected one of the message types.

42. The system of Claim 41 wherein the data generation module comprises a system management module that generates data values as numerical values and/or event indicators and wherein the data generation module comprises a plurality of data acquisition agent scripts, a first one of the data acquisition agent scripts being associated with a first one of the message types and a second one of the data acquisition agent scripts being associated with a second one of the message types.

43. The system of Claim 42 comprising a plurality of data generation modules resident on managed application servers that are configured to gather data from a managed application server on which they reside.

44. A system for language independent display of data in a first language comprising:

a data display module configured to:

receive a data record formatted in a language independent markup format from a data processing system that displays text in a language different from the first language;

retrieve a style sheet that specifies how to display text associated

- with the data values in the data record in the first language;
- format the data record based on the retrieved style sheet; and
- display the formatted data values in the first language; and
- at least one style sheet associated with the first language.

45. A system for displaying data in a selected language, comprising:
means for receiving a data record formatted in a language independent markup format;

- means for retrieving a style sheet associated with the selected language;
- means for formatting the data record based on the style sheet; and
- means for displaying the formatted data record in the selected language.

46. A system for providing data generated at a first data processing system that displays text in a first language to a second data processing system that displays text in a second language different from the first language, the system comprising:

- means for generating data values at the first data processing system;
- means for incorporating the generated data values in a language independent markup document, the language independent markup document including an identification of a style sheet that specifies how to present the data values in the second language, to provide the data record; and
- means for forwarding the data record from the first data processing system to the second data processing system.

47. A computer program product for displaying data in a selected language, the computer program product comprising:

- a computer-readable storage medium having computer-readable program code embodied in said medium, said computer-readable program code comprising:
 - computer-readable program code that receives a data record formatted in a

language independent computer-readable program code that retrieves a style sheet associated with the selected language;

computer-readable program code that formats the data record based on the style sheet; and

computer-readable program code that displays the formatted data record in the selected language.

48. A computer program product for providing data generated at a first data processing system that displays text in a first language to a second data processing system that displays text in a second language different from the first language, the computer program product comprising:

a computer-readable storage medium having computer-readable program code embodied in said medium, said computer-readable program code comprising:

computer-readable program code that generates data values at the first data processing system;

computer-readable program code that incorporates the generated data values in a language independent markup document, the language independent markup document including an identification of a style sheet that specifies how to present the data values in the second language, to provide the data record; and

computer-readable program code that forwards the data record from the first data processing system to the second data processing system.

49. A method for displaying data in a dynamically defined format, comprising:

receiving a data record formatted in a markup format and including a schema and a style sheet identifier;

retrieving a style sheet based on the style sheet identifier;

formatting the data record based on the received schema and the retrieved style sheet to provide the dynamically defined format for display; and

displaying the formatted data record in the dynamically defined format.

50. The method of Claim 49 wherein the schema includes display information in a base language and wherein the style sheet identifier comprises an identifier associated with a default style sheet configured to display data for a plurality of schema and wherein displaying the formatted data record comprises displaying the formatted data record in the base language.

51. The method of Claim 49 wherein the data record is formatted in a language independent markup format and wherein the style sheet identifier comprises an identifier of a style sheet associated with a selected language and wherein displaying the formatted data record comprises displaying the formatted data record in the selected language.

52. The method of Claim 51 wherein the schema includes display information in a base language and wherein the style sheet identifier identifies an unavailable style sheet and wherein formatting the data comprises formatting the data record based on a default style sheet and wherein displaying the formatted data record comprises displaying the formatted data record in the base language.

53. The method of Claim 49 wherein the data record includes a plurality of style sheet identifiers.

54. The method of Claim 53 wherein the plurality of style sheet identifiers are all associated with a single style sheet.

55. The method of Claim 53 wherein at least one of the plurality of style sheet identifiers is associated with a different style sheet than another of the plurality of style sheet identifiers.

56. A method for providing data configured for display in a dynamically defined format, the method comprising:

- generating data values at a first data processing system;
- incorporating the generated data values in a markup format document;
- incorporating a schema in the markup format document that defines a data display format;

- incorporating a style sheet identifier in the markup format document that identifies a style sheet that specifies how to format the generated data values for display using the schema; and

- forwarding the markup format document from the first data processing system to a second data processing system for display in the dynamically defined format.

57. A system for displaying data in a dynamically defined format comprising:

- a data display module configured to:

- receive a data record formatted in a markup format and including a schema and a style sheet identifier;

- retrieve a style sheet based on the style sheet identifier;

- format the data record based on the received schema and the retrieved style sheet to provide the dynamically defined format for display;
- and

- display the formatted data record in the dynamically defined format;

- and

- at least one style sheet identified by the style sheet identifier.

58. A system for providing data generated at a first data processing system to a second data processing system for display in a dynamically defined

format, the system comprising a data generation module at the first data processing system configured to:

- generate data values at the first data processing system;
- incorporate the generated data values in a markup format document;
- incorporate a schema in the markup format document that defines a data display format;
- incorporate a style sheet identifier in the markup format document that identifies a style sheet that specifies how to format the generated data values for display using the schema; and
- forward the markup format document from the first data processing system to a second data processing system for display in the dynamically defined format.